IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A method of managing volumes of a plurality of storage systems, by a management computer connected via a <u>first</u> network to the plurality of storage systems having volumes connected to a computer via a <u>second</u> network and storing data used by the computer, the method comprising the steps of:

keeping a correspondence between <u>each value of</u> a level <u>and</u> <u>characteristic information related to characteristics of each volume to be</u> <u>provided by a storage system including the volume</u>indicating a specific performance of a volume, and storage-system characteristics of the storage system;

obtaining from a first storage system<u>, a first value of</u> a level indicating <u>characteristic information of a first</u> a performance of a volume allocated <u>having been provided</u> to the computer by the first storage system; and

referencing the <u>characteristic information corresponding to the first</u> <u>value among the plurality of storage systems;</u>storage-system characteristics of the first storage system that corresponds to the obtained level indicating the performance of the volume and storage-system characteristics of another storage-system that corresponds to the obtained level indicating the performance of the volume, respectively, and

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comparing the <u>referenced characteristic information among the plurality</u> <u>of</u> ~~performances of the volumes of the respective~~ storage systems against each other.

2. (currently amended) The volume management method according to claim 1, wherein a correspondence is obtained from the storage system connected to the <u>management</u> computer.

3. (currently amended) <u>A method of managing volumes of a plurality of</u> <u>storage systems, by a management computer connected via a first network to</u> <u>the plurality of storage systems having volumes connected to a computer via</u> <u>a second network and storing data used by the computer, the method</u> <u>comprising the steps of:</u>

<u>keeping a correspondence between a level indicating a specific</u> <u>performance of each volume and storage system characteristics of a storage</u> <u>system including the volume;</u>

<u>obtaining from a first storage system a level indicating a performance</u> <u>of a volume allocated to the computer by the first storage system; and</u>

<u>referencing the storage system characteristics of the first storage</u> <u>system that corresponds to the obtained level indicating the performance of</u> <u>the volume and storage system characteristics of another storage system that</u> <u>corresponds to the obtained level indicating the performance of the volume,</u> <u>respectively, and comparing the performances of the volumes of the</u> <u>respective storage systems against each other.</u> ~~The volume management~~ ~~method according to claim 1,~~

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wherein the comparison of the performances of the respective volumes in the respective storage systems is performed when ~~the~~ a correspondence is obtained from a new storage system that has been connected to the management computer via the first network.

4. (currently amended) The volume management method according to claim 2, wherein the comparison of the ~~performance of the~~characteristic information of respective volumes is also performed when a new correspondence is obtained from the first storage system.

5. (currently amended) A method of managing volumes of a plurality of storage systems, by a management computer connected via a first network to the plurality of storage systems having volumes connected to a computer via a second network and storing data used by the computer, the method comprising the steps of:

keeping a correspondence between a level indicating a specific performance of each volume and storage system characteristics of a storage system including the volume;

obtaining from a first storage system a level indicating a performance of a volume allocated to the computer by the first storage system; and

referencing the storage system characteristics of the first storage system that corresponds to the obtained level indicating the performance of the volume and storage system characteristics of another storage system that corresponds to the obtained level indicating the performance of the volume, respectively, and comparing the performances of the volumes of the

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respective storage systems against each other. ~~The volume management~~

~~method according to claim 1~~,

wherein the level is an integer value from 0 to 10.

6. (currently amended) The volume management method according to claim 1, further comprising the step of:

instructing the other storage ~~sub~~system, based on the results of the comparison, to ~~allocate~~ provide to the computer a volume having the characteristic information ~~storage system characteristics~~ of the other storage system corresponding to the obtained level.

7. (currently amended) A method of managing volumes of a plurality of storage systems, by a management computer connected via a first network to the plurality of storage systems having volumes connected to a computer via a second network and storing data used by the computer, the method comprising the steps of:

keeping a correspondence between a level indicating a specific performance of each volume and storage system characteristics of a storage system including the volume;

obtaining from a first storage system a level indicating a performance of a volume allocated to the computer by the first storage system;

referencing the storage system characteristics of the first storage system that corresponds to the obtained level indicating the performance of the volume and storage system characteristics of another storage system that corresponds to the obtained level indicating the performance of the volume,

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respectively, and comparing the performances of the volumes of the respective storage systems against each other. ~~The volume management method according to claim 6,~~ and

instructing the other storage subsystem, based on the results of the comparison, to allocate to the computer a volume having storage system characteristics of the other storage system corresponding to the obtained level,

wherein the management computer receives an input giving an instruction to allocate to the computer the volume having storage system characteristics of the other storage system corresponding to the obtained level, and instructs the allocation.

8. (previously presented) The volume management method according to claim 1, wherein the comparison of the respective levels indicating a specific performance is not performed in a case where the level indicating the specific performance of the volume indicates that the specific performance is not needed.

9. (currently amended) A method of managing volumes of a plurality of storage systems, by a management computer connected via a first network to the plurality of storage systems having volumes connected to a computer via a second network and storing data used by the computer, the method comprising the steps of:

keeping a correspondence between a level indicating a specific

performance of each volume and storage system characteristics of a storage

system including the volume;

obtaining from a first storage system a level indicating a performance

of a volume allocated to the computer by the first storage system; and

referencing the storage system characteristics of the first storage

system that corresponds to the obtained level indicating the performance of

the volume and storage system characteristics of another storage system that

corresponds to the obtained level indicating the performance of the volume,

respectively, and comparing the performances of the volumes of the

respective storage systems against each other;The volume management

method according to claim 6,

instructing the other storage subsystem, based on the results of the

comparison, to allocate to the computer a volume having storage system

characteristics of the other storage system corresponding to the obtained

level,

wherein the management computer receives an input giving an

instruction to allocate to the computer the volume having storage system

characteristics of the other storage system corresponding to the obtained

level, and instructs the allocation;The volume management method according

to claim 6, further comprising the steps of:

copying data stored in a volume of the first storage system into a

volume allocated to the computer based on the instructionsin response to the

instructing; and

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giving instructions to the computer via a management network to execute, via a data network, at least one of: reading ~~the~~ data copied by the computer into the allocated volume, and writing new data.

10. (original) The volume management method according to claim 1, wherein, in a case where there are a plurality of specific performances, the comparison is performed using the highest level of performance.

11. (currently amended) A method for managing a volume of a first storage system connected to a computer via a <u>first</u> network, and a volume of a second storage system connected to the first storage system, by a management computer connected to the first storage system and the second storage system via a <u>second</u> network, the method comprising the steps of:

keeping a correspondence between a level indicating a specific performance of ~~a~~ <u>each</u> volume and a storage system characteristics indicating a performance of ~~the~~ <u>a</u> storage system <u>including the volume</u>, for each of the storage systems;

obtaining <u>each first value of</u> a level <u>and characteristic information related to characteristics of a first volume to be provided by</u>~~indicating a specific performance of a volume of~~ the first storage system, and <u>each second value of</u> a level <u>and characteristic information related to characteristics of a second volume to be provided by</u> ~~indicating a specific performance of a volume of~~ the second storage system connected to the <u>first</u> volume of the first storage system;

comparing the storage system characteristics corresponding to the obtained <u>first value and the second value</u> level; and

storing data stored in the <u>second</u> volume of the second storage system into the <u>first</u> volume of the first storage system, based on the results of the comparison.

12. (currently amended) <u>A method of managing a volume of a first storage system connected to a computer via a first network, and a volume of a second storage system connected to the first storage system, by a management computer connected to the first storage system and the second storage system via a second network, the method comprising the steps of:</u>

<u>keeping a correspondence between a level indicating a specific performance of each volume and storage system characteristics indicating a performance of a storage system including the volume, for each of the storage systems;</u>

<u>obtaining a level indicating a specific performance of a volume of the first storage system, and a level indicating a specific performance of a volume of the second storage system connected to the volume of the first storage system;</u>

<u>comparing the storage system characteristics corresponding to the obtained level; and</u>

<u>storing data stored in the volume of the second storage system into the volume of the first storage system, based on the results of the comparison</u><s>The volume management method according to claim 11,</s>

wherein the comparison of the storage system characteristics is performed by obtaining mapping information indicating that the volume of the first storage system is connected to the volume of the second storage system, based on the mapping information.

13. (original) The volume management method according to claim 12, wherein the mapping information is obtained from the first storage system.

14. (currently amended) The volume management method according to claim 12, further comprising the step of~:

when the result of the comparison indicate that the storage system characteristics of the first storage system corresponding to the level indicating the specific performance of the volume of the second storage system is better than the storage system characteristics of the second storage system, storing the data into the volume having a specific performance, based on the storage system characteristics of the first storage system corresponding to the level of the first storage system.

15. (currently amended) The volume management method according to claim 14, further comprising the step of:

instructing the first storage system to erase the mapping information.

16. (currently amended) A first storage system connected to a computer via a network, comprising:

a volume connected to a volume of another storage system storing data used by a the computer;

a memory for keeping a correspondence between each value of a level and characteristic information related to characteristics of each volume to be provided by a storage system including the volume indicating a specific performance of the volume, and storage system characteristics of the storage system, for each of the storage systems; and

a control unit for controlling access made to the first storage system or the other storage system from the computer,

wherein the control unit obtains the level indicating the specific characteristic information performance of the volume of the other storage system, references the characteristic information corresponding to the first value among the plurality of storage systemstorage system characteristics of the first storage system and the other storage system corresponding to the level based on the correspondence, and compares the referenced valuescharacteristic information among the plurality of storage systems.

17. (currently amended) The first storage system according to claim 16, wherein based on the result of the comparison, the data is stored into a volume having the storage system characteristics corresponding to the value of a level indicating the specific performancecharacteristic information of the volume of the first storage system.

Claims 18 (canceled).

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19.   (currently amended) A storage medium storing a program that can be read by a management computer managing volumes of a plurality of storage systems, which program is executed by the management computer connected via a first network to the plurality of storage systems having volumes that are connected to a computer and to the plurality of storage systems to store data used by the computer, the storage medium comprising:

a sequence of obtaining correspondences between levels indicating a specific performance of each volume and storage system characteristics of a storage system including the volume;

a sequence of obtaining from a first storage system a level indicating a performance of a volume allocated to the computer by the first storage system;

referencing the storage system characteristics of the first storage system corresponding to the obtained level indicating the performance of the volume, and storage system characteristics of another storage system, and comparing the performances of the volumes of the respective storage systems against each other;The storage medium according to claim 18, further comprising and

a sequence of giving an instruction to the other storage system based on the results of the comparison, to allocate to the computer a volume of the other storage system having storage system characteristics corresponding to the obtained level.

Claim 20 (canceled).